

REMARKS/ARGUMENTS

Claims 1-12 were pending in the present application. The present response cancels claims 1-12; and adds new claims 21-27; leaving pending in the application claims 21-27. Consideration of the newly presented claims is respectfully requested.

I. Objection to the Specification

The specification is objected to as being unclear for describing the silicide layer as a “thin insulating barrier” that can serve as a “tunneling junction” for spin-polarized carriers. As noted by the Examiner, and set forth in the application, the silicide layer is a conductive layer that makes good ohmic contact with the substrate and does not significantly inhibit current flow. The use of the terms “insulating” and “tunneling” were used with respect to the spin polarization of the electrodes, and not with respect to current. Applicants recognize that such use of terminology, without further explanation, could be unclear. Further, such description is not necessary to enable the invention. As such, the language has been amended to read that the “thin layer of silicide allows for the injection of spin-polarized carriers into the silicon substrate without significant loss of spin polarization,” which is supported elsewhere in the specification, does not add new matter, and should be sufficiently clear. This change is not meant to alter the scope of the claimed invention or any equivalents thereof. Applicants therefore respectfully request that the objection to the specification be withdrawn.

II. Objection to the Claims

Claims 10 and 11 are objected to as being duplicates. These claims have been canceled from the application such that the objection is now moot.

III. Rejection under 35 U.S.C. §102

Claims 1-12 are rejected under 35 U.S.C. §102(e) as being anticipated by *Hsu* (US 6,753,562). Claims 1-12 have been canceled from the present application, such that the rejection is now moot.

IV. Newly Presented Claims

Claims 21-27 have been added to cover different aspects of the present invention. Particularly, these claims have been added to claim a spintronic device including ferromagnetic source and drain contacts, with a silicide layer positioned between, and in contact with, the ferromagnetic source contact and a carrier channel to allow spin polarized carriers to be transmitted from the ferromagnetic source contact directly into the carrier channel without altering spin polarization. Such limitations are not disclosed by *Hsu*, as *Hsu* instead discloses using a "ferromagnetic semiconductor/semiconductor heterojunction," which can include a "silicide layer" to inject spin-polarized electrons (col. 10, lines 13-16; col. 11, lines 10-19; Figs. 3(a)-4). As can be seen, *Hsu* does not disclose a ferromagnetic source, but instead discloses a more complex combination of a ferromagnetic layer (106) and a source region (102). The added claims are supported by the specification and do not add new matter. Applicants therefore respectfully request consideration of newly presented claims 21-27.

V. Conclusion

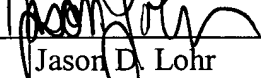
In view of the above, it is respectfully submitted that the application is now in condition for allowance. Reconsideration of the pending claims and a notice of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-1703, under Order No. NSC1-M4400 **A duplicate copy of the transmittal cover sheet attached to this Response to Office Action Mailed February 17, 2005, is provided herewith.**

Respectfully submitted,

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